

WHAT IS CLAIMED IS:

1. An assembly for a tape drive, comprising:
a magnetic read/write head; and
means for positioning the head.
2. A head actuator assembly for a tape drive, comprising:
a coarse positioner base assembly;
first and second shafts vertically mounted at first ends on the coarse positioner base assembly; and
a coarse positioner base configured to carry a head carriage assembly and voice coil holder, the coarse positioner base having at least first and second bores and at least first and second bushings respectively in the first and second bores, the coarse positioner base being vertically movably mounted on the first and second shafts such that the first and second shafts respectively extend through the first and second bushings and the first and second bores.
3. The head actuator assembly of claim 2, further comprising third and fourth bushings respectively in the first and second bores, the first and second shafts respectively extending through the third and fourth bushings, the first, second, third and fourth bushings forming a four-point support of the coarse positioner base on the first and second shafts.
4. The head actuator assembly of claim 3, further comprising a biasing element coupled to bias the coarse positioner base against the second shaft.
5. The head actuator assembly of claim 4, further comprising a head carriage assembly and a separate voice coil holder removeably connected to the head carriage assembly by a fastener.

6. The head actuator assembly of claim 5, wherein the head carriage assembly is made of plastic and the voice coil holder is made of metal.

7. The head actuator assembly of claim 6, further comprising a voice coil motor having a tapered center pole and a cylindrical outer magnet, with a space between the tapered center pole and the cylindrical outer magnet accommodating the voice coil holder.

8. The head actuator assembly of claim 7, further comprising a flexible printed circuit (FPC) bracket and a voice coil motor holder attached to the voice coil holder and holding the voice coil motor, the FPC bracket coupled to the voice coil motor holder and containing slots through which an FPC is routed and retained, the FPC bracket moving vertically with the voice coil motor as the coarse positioner base is vertically moved and carrying the FPC without interference.

9. The head actuator assembly of claim 8, further comprising a shaft support arrangement for supporting the second shaft, the shaft support arrangement comprising: first and second support shafts vertically mounted at a first end on the coarse positioner base assembly parallel to the second shaft; and a horizontal connecting plate mounted at a second end of the first and second support shafts and the second shaft.

10. The head actuator assembly of claim 9, wherein the first shaft is a guide shaft and the second shaft is an anti-rotation shaft.

11. A head actuator assembly for a tape drive, comprising:
a head carriage assembly; and
a voice coil holder removeably coupled to the head carriage assembly.

12. The head actuator assembly of claim 11, wherein the head carriage assembly comprises a plastic head carriage, and the voice coil holder is metallic.

13. The head actuator assembly of claim 12, further comprising: a coarse positioner base assembly and two shafts mounted on the coarse positioner base assembly; a coarse positioner base slideably mounted on the two shafts with a force bias applied on the coarse positioner base against one of the two shafts.

14. The head actuator assembly of claim 13, wherein the coarse positioner base is supported on the two shafts by a four-point support.

15. The head actuator assembly of claim 14, further comprising a voice coil motor holder and a voice coil motor held by the voice coil motor, the voice coil motor holder removeably mounted on the head carriage assembly.

16. The head actuator assembly of claim 15, wherein the voice coil motor has a tapered center pole and a cylindrical outer magnet, with a space between the tapered center pole and the cylindrical outer magnet accommodating the voice coil holder.

17. The head actuator assembly of claim 16, wherein the voice coil motor holder has top and bottom flexure mounting surfaces, and further comprising top and bottom flexures mounted to the voice coil motor holder and the voice coil holder.

18. The head actuator assembly of claim 17, further comprising a flexible printed circuit (FPC) bracket coupled to the voice coil motor holder and having slots for holding flexible printed circuits.

19. The head actuator assembly of claim 18, wherein the FPC bracket includes locating features at one end of the slots and extending perpendicular to the slots to retain flexible printed circuits within the slots.

20. The head actuator assembly of claim 19, further comprising removable fasteners connecting the voice coil holder and the head carriage assembly.